FEDERAL COMMUNICATIONS COMMISSION (FCC) WARNING

Instruction to Users

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

This equipment has been certified to comply with the limits for a Class B computing device, pursuant to part 15 of the FCC rules. Only peripherals (computer input / output devices, terminals, printers etc.) certified to comply to the Class B limits may be attached to this computer. Operation with non-certified peripherals is likely to result in interference to radio and TV reception.

Remarks

To meet FCC requirement, shielded cables are required to connect the device to a personal computer or other Class B certified device.

Information to Users

Any change or modifications expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

DOC NOTICE

This product conforms to Canadian Class B emissions regulations.

Ce produit est conforme aux réglements d'émission Canadienne class B.

TCO95 NOTICE

This product is delivered with a shielded cord set. In order to comply with TCOs requirements for low electromagnetic emission this cord set must be used, connected to a grounded outlet. If the cord set is replaced by another cord set we can not guarantee that the product still complies with TCOs requirements.

INTRODUCTION

This microprocessor-based, digital control 15” color monitor is a high performance and easy to use product.

It employs the latest on-screen-menu technology. The microprocessor capability offers 13 most commonly used VESA timing modes preset in the factory, and 8 modes for user to adjust to the special timings that user might have.

We hope that you will find this manual is helpful in obtaining the fullest use of your monitor, and in ensuring your personal safety during operation.

POWER SAVING

The monitor will be driven to different power saving states upon receiving control signals from the display controller, this meets the EPA (Environment Protection Agency) Energy Star requirements and reduces power consumption.

The monitor will work in the following 4 states according to the VESA standard Display Power Management Signal:

State	Power Consumption	LED Light
ON	Normal	Green
STANDBY	<15W	Yellow
SUSPEND	<15W	Yellow
OFF	< 5W	Amber

The power saving states will be kept until a control signal has been detected or the keyboard or mouse is activated. The recovery time from STANDBY/ SUSPEND state to ON state shall be within 3 seconds. It will take about less than 15 seconds from OFF state back to ON state.

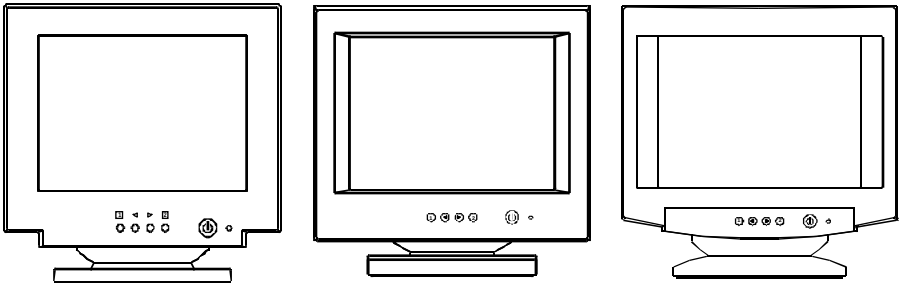
INSTALL THE MONITOR

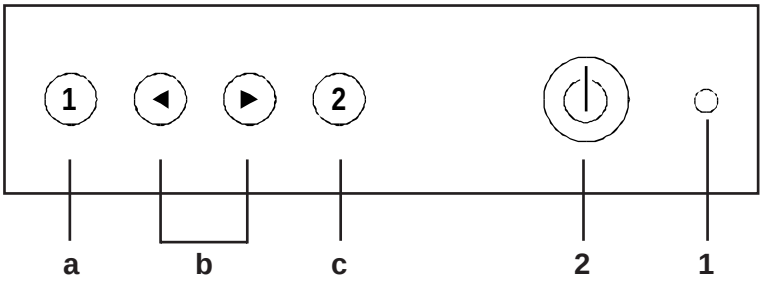
- To connect the tilt/swivel base to the monitor, align hooks with the sockets on bottom side of the monitor, and gently push the base towards the front of the monitor.
- The 15-pin D-shell signal connector on the signal cable will connect easily to the video adapter output on your personal computer. Lock both screws on the connector to ensure a firm connection.
- Turn the PC power switch ON. Then turn the monitor power switch ON, by pressing the switch inward. The green power indicator will light up.
- Allow about 30 seconds for the CRT tube to warm up. Data will be displayed on the screen.
- If your display fails to function properly, please first refer to the section "Troubleshooting" in this manual.

POWER CORD

- Check first to make sure that the power cord you use is the correct type required for your area.
- This monitor has a universal power supply that allows operation in either 100/120V AC or 220/240V AC voltage area. No user-adjustment is required.
- First connect the power cord into your monitor's power input socket, and then plug the other end into a 3-pin AC outlet. The power cord may be connected to either a wall socket or the power output socket on your PC, depending on the type of power cord supplied with your monitor.
- For units to be used at 120V AC:
  Use a UL Listed Cord Set consisting of a min. No. 18 AWG, Type SVT or SJT three-conductor a maximum of 15 ft. in length and a parallel blade, grounding type attachment plug rated 10A, 125V.
- For units to be used at 240V AC (domestic use):
  Use a UL Listed Cord Set consisting of a min. No. 18 AWG, Type SVT or SJT three-conductor cord a maximum of 15 ft. in length and a tandem blade, grounding type attachment plug rated 10A, 250V.
- For units to be used at 220/240V AC (outside of U.S.):
  Use a Cord Set consisting of a min. No.18 AWG cord and grounding type attachment plug rated 15A, 250V. The cord set should have the appropriate safety approvals for the country in which the equipment will be installed and marked HAR.

USER CONTROLS AND INDICATORS



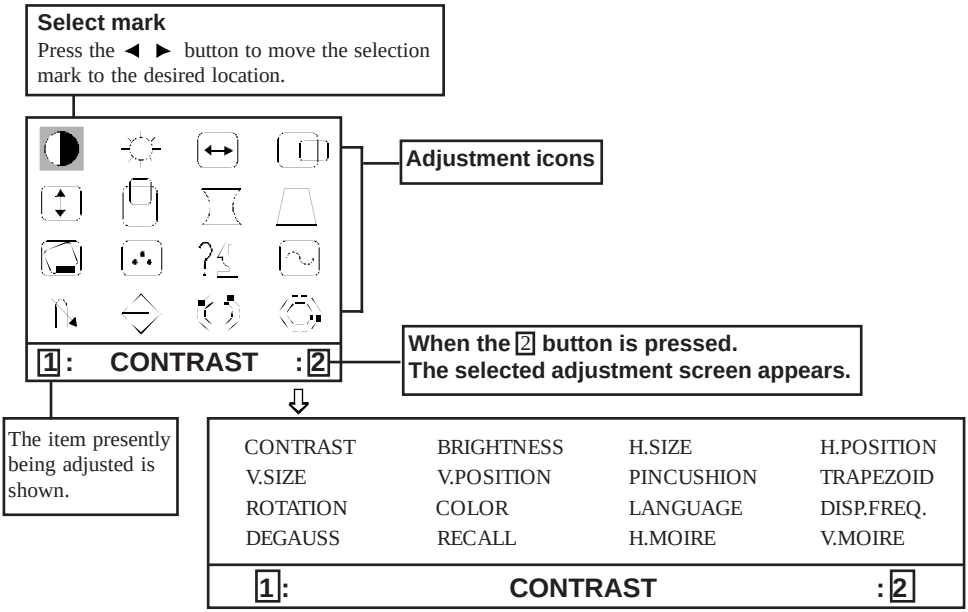


a. Displays menu & exits menu
b. Scrolls through menu to choose an icon for adjustment / Adjusts level of selected icon
c. Confirms menu selection

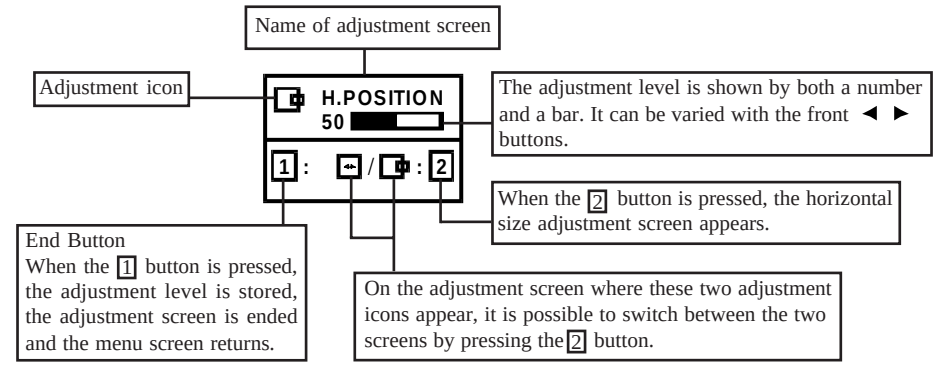
1. Power LED
2. Power ON/OFF switch

USING THE ON-SCREEN MENU

1) Menu screen-press the 1 button to display the menu below and exit menus


Select mark
Press the ◄ ► button to move the selection mark to the desired location.
Adjustment icons
1 : CONTRAST : 2
When the 2 button is pressed.
The selected adjustment screen appears.
The item presently being adjusted is shown.
CONTRAST BRIGHTNESS H.SIZE H.POSITION
V.SIZE V.POSITION PINCUSHION TRAPEZOID
ROTATION COLOR LANGUAGE DISP.FREQ.
DEGAUSS RECALL H.MOIRE V.MOIRE
1: CONTRAST : 2

2) Adjustment screen (example: horizontal position adjustment)


Name of adjustment screen
Adjustment icon
H.POSITION
50
1 : / : 2
The adjustment level is shown by both a number and a bar. It can be varied with the front ◄ ► buttons.
When the 2 button is pressed, the horizontal size adjustment screen appears.
End Button
When the 1 button is pressed, the adjustment level is stored, the adjustment screen is ended and the menu screen returns.
On the adjustment screen where these two adjustment icons appear, it is possible to switch between the two screens by pressing the 2 button.

NOTE: The amount of adjustment depends upon how long you depress the adjustment button. You may have to tap the button to obtain the desired results.

INDIVIDUAL ADJUSTMENT

CONTRAST adjustment

Adjust the screen contrast to match your personal perference.
Press the ◄ button to decrease contrast and press the ► button to increase it.
Direct operation: You can access the CONTRAST adjustment screen by pressing the ◄ or ► before entering the menu screen.
Press the 2 key toggles between CONTRAST and BRIGHTNESS.

BRIGHTNESS adjustment

Adjusts the brightness to get the desired background level.
Press the ► button to make the background lighter, the ◄ button to make it darker.
Press the 2 key toggles between CONTRAST and BRIGHTNESS.

HORIZONTAL SIZE adjustment

Fills the viewable area horizontally.
Press the ◄ button to make the image narrower, or press the ► button to make it wider.
Press the 2 key toggles between HORIZONTAL SIZE and HORIZONTAL POSITION.

HORIZONTAL POSITION adjustment

Shifts the image on the screen horizontally.
Press the ◄ button to move the screen image to the left, or press the ► button to move it to the right.
Press the 2 key toggles between HORIZONTAL SIZE and HORIZONTAL POSITION.

VERTICAL SIZE adjustment

Fills the viewable area vertically.
Press the ◄ button to make the image smaller, or press the ► button to make it larger. Press the 2 key toggles between VERTICAL SIZE and VERTICAL POSITION.

VERTICAL POSITION adjustment

Shifts the image on the screen vertically.
Press the ◄ button to move it downward, or press the ► button to move it upward.
Press the 2 key toggles between VERTICAL SIZE and VERTICAL POSITION

PINCUSHION adjustment

The image can be corrected for barrel distortion.
Press the ◄ button or the ► button to eliminate curved vertical lines.
Press the 2 key toggles between VERTICAL PINCUSHION and TRAPEZOIDAL correction.

TRAPEZOID adjustment

The image can be corrected for the trapezoidal distortion.
Press the ◄ button to narrow the top edge, or press the ► button to make the top edge wider.
Press the 2 key toggles between PINCUSHION and TRAPEZOID correction.

ROTATION adjustment

The image can be corrected for tilt picture.
Press the ◄ button to tilt the image to the left, or press the ► button to tilt the image to the right.

COLOR selection

The white in the image can be adjusted.

1) Use the ◄ ► button to select: (1)9300^{O}K, (2)6550^{O}K or (3)the user's preferred color.
2) If the (3):the user's color is selected, "2" appears in the lower right of the On-Screen Menu.

Press the front 2 button to display the USER COLOR adjustment screen.

USER COLOR

The white in the video image can be adjusted to the user's preferred color.

1) Use the 2 button to select R (red) or B (blue).

2) Use the ◄ ► button to adjust the color as desired.

*The GREEN color is fixed and cannot be adjusted.

IMPORTANT-Memory recall of the user's color is not possible, so take note of the initial setting before adjusting.

When the monitor is turned OFF, user color keeps the last adjustment.

LANGUAGE selection

The language of the On-Screen Menu can be selected among English, French, German, Italian and Spanish. Select with the ◄ ► buttons.

DISP. FREQ (Input frequency display)

This displays the input synchronization signal frequency.

It identifies the horizontal and vertical frequency sent to the monitor from the video card currently in use.

MANUAL DEGAUSSING

After moving the selector to the degauss icon, press the 2 button. The degaussing action takes place a few seconds later.

Note: A sharp snap noise may be heard when degaussing occurs. This is normal.

MEMORY RECALL

It is possible to restore adjustments to the original factory settings. If the monitor is operating in a user defined mode, this control has no effect.

HORIZONTAL MOIRE

Reduce the dark wavy line Moire pattern on the screen.

Press the ◄ or ► button to minimize the horizontal moire image on the screen.

VERTICAL MOIRE

Reduce the dark wavy line Moire pattern on the screen.

Press the ◄ or ► button to minimize the vertical moire image on the screen.

TROUBLESHOOTING

If your monitor fails to operate functionally, it may be possible to correct the problem by making simple checks as follows:

Problem	Check & Adjust	
Blank screen (* note.)		Monitor power switch, power cord, signal cable, or connector PC power switch Brightness & contrast controls
Display position off-center		Vertical centering & horizontal phase controls
Display too small or too large		Vertical & horizontal size controls
Display too bright or too dim		Brightness & contrast controls

Refer to the operation instructions for your computer/ video adapter to ensure that you have the correct signal output source for the monitor. Ensure that the switches on the video adapter are set correctly for operation with this monitor.

If the above steps fail to correct the problem contact your dealer for servicing by qualified service personnel.

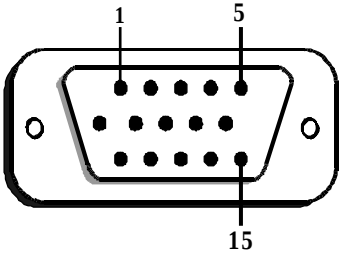
Please remember that the monitor should be returned for servicing together with the power cord.

* Note: You can easily distinguish the problem is on the monitor or on the computer by using the monitor's built-in selftest function.
With the monitor power ON, disconnect the signal cable from monitor. If there is no image on the monitor screen, disconnect the signal cable. If a full-white image is diaplayed on the screen, the monitor is function properly, and the problem is at PC side, or signal cable.

SERVICING

Refer all servicing to qualified service personnel.
Serious shock hazards exist within the covers of this monitor.
Do not open the covers under any circumstances- there are no serviceable parts inside.

SIGNAL CONNECTOR INFORMATION



Pin	Function	Pin	Function
1	Red signal	9	NC
2	Green signal	10	Digital ground
3	Blue signal	11	Ground
4	Ground	12	SDA (DDC1/DDC2B)
5	* (Note)	13	Horizontal Synchronization
6	Red return	14	Vertical synchronization & VCLK (DDC1)
7	Green return	15	SCL (DDC 2B)
8	Blue return		

***Note :** This pin is used for self test detection; at PC side, this pin has to be connected to ground.

TECHNICAL SPECIFICATIONS

Screen Size	15" visual diagonal Viewable screen size 13.8" Anti-Glare Coating**	Current Rating	1.8 A
Dot Pitch	0.28 mm	Power Consumption	100 W (MAX.)
Display Area (H x W)	196 x 262 (mm), typical	Dimension	376 X 380 X 396 (mm) pending on different cabinets
Display Colors	Infinite	Weight	12.8kg
Max. Resolution	1280 Dots x 1024 Lines	Operating Temperature	10 C to 35 C
Compatibility	All graphic modes with horizontal frequencies between 30 KHz to 69 KHz	Storage Temperature	-40 C to 65 C
Synchronization Horizontal: Vertical:	 30 to 69 KHz 55 to 120Hz	Humidity	20% to 80% (non-condensing)
Input Signal	Video RGB Analog Sync. TTL Separate	Altitude	Up to 7000ft
Signal Cable	15-pin D-sub connector	MPRII	MPR 1990:10, TCO Optional
Power Input Voltage Frequency	 100 to 240V AC 50 - 60 Hz		

* Specifications are subject to change without notice.
** TCO version has a different surface treatment.

PRESET MODES

Mode	Resolution (H x V)	H. Freq. (KHz)	V. Freq. (Hz)	Mode	Resolution (H x V)	H. Freq. (KHz)	V. Freq. (Hz)
1	720 X 400	31.4	70	8	1024 x 768	48.3	60
2	640 x 480	31.4	60	9	800 x 600	53.6	85
3	640 x 480	35.0	66	10	1024 x 768	56.4	70
4	800 x 600	37.8	60	11	1024 x 768	60.0	75
5	640 x 480	37.5	75	12	1280 x 1024	64.3	60
6	640 x 480	43.3	85	13	1024 x 768	68.6	85
7	800 x 600	46.8	75				